What is claimed is:

1. A navigation system comprising:

an inertial measurement unit having a clock;

a navigation computer having a clock; and,

a clock controller, wherein the clock controller enables only the navigation computer to be clocked by the clock of the navigation computer at times, and wherein the clock controller enables both the navigation computer and the inertial measurement unit to be clocked by the clock of the navigation computer at other times.

2. The navigation system of claim 1 wherein the clock controller comprises a phase controller that controls the phase of a clock signal.

3. The navigation system of claim 1 wherein the inertial measurement unit includes a first switch, wherein the navigation computer includes a second switch, and wherein the clock controller controls the first and second switches so as to enable only the navigation computer to be clocked by the clock of the navigation computer at times, and so as to enable both the

navigation computer and the inertial measurement unit to be clocked by the clock of the navigation computer at other times.

4. The navigation system of claim 3 wherein the first switch comprises first and second terminals, wherein the first terminal is coupled to the clock of the inertial measurement unit and the second terminal is coupled to the second switch, wherein the second switch comprises a third terminal, wherein the third terminal is coupled to the clock of the navigation computer, and wherein the clock controller controls the first and second switches.

5. The navigation system of claim 1 further comprising a GPS receiver having a clock, wherein the clock of the GPS receiver is coupled to the clock controller, wherein the clock controller enables all of the inertial measurement unit, the navigation computer, and the GPS receiver to be clocked by the clock of the GPS receiver at still other times.

6. The navigation system of claim 5 wherein the inertial measurement unit includes a first switch,

wherein the navigation computer includes a second switch, and wherein the clock controller controls the first and second switches so as to enable only the navigation computer to be clocked by the clock of the navigation computer at times, so as to enable both the inertial measurement unit and the navigation computer to be clocked by the clock of the navigation computer at other times, and to enable all of the inertial measurement unit, the navigation computer, and the GPS receiver to be clocked by the clock of the GPS receiver at still other times.

7. The navigation system of claim 6 wherein the first switch comprises first and second terminals and a first output, wherein the second switch comprises third and fourth terminals and a second output, wherein the first terminal is coupled to the clock of the inertial measurement unit, wherein the second terminal is coupled to the second output, wherein the third terminal is coupled to the clock of the navigation computer, wherein the fourth terminal is coupled to the clock controller, wherein the clock of the GPS receiver is coupled to the clock controller, and wherein the clock controller controls the first and second switches.

8. The navigation system of claim 5 wherein the clock controller comprises a phase controller that controls the phase of a clock signal from the clock of the GPS receiver.

9. The navigation system of claim 8 wherein the inertial measurement unit includes a first switch, wherein the navigation computer includes a second switch, and wherein the clock controller controls the first and second switches so as to enable only the navigation computer to be clocked by the clock of the navigation computer at times, so as to enable both the inertial measurement unit and the navigation computer to be clocked by the clock of the navigation computer at other times, and so as to enable all of the inertial measurement unit, the navigation computer, and the GPS receiver to be clocked by the clock of the GPS receiver at still other times.

10. The navigation system of claim 9 wherein the first switch comprises first and second terminals and a first output, wherein the second switch comprises third and fourth terminals and a second output, wherein the

first terminal is coupled to the clock of the inertial measurement unit, wherein the second terminal is coupled to the second output, wherein the third terminal is coupled to the clock of the navigation computer, wherein the fourth terminal is coupled to the clock controller, wherein the clock of the GPS receiver is coupled to the clock controller, and wherein the clock controller controls the first, second, and third switches.

11. The navigation system of claim 8 wherein the phase controller comprises a count down register having a first input coupled to a clock source operating at a multiple of the clock of the GPS receiver, a second input coupled to the clock of the GPS receiver, and a third input receiving an initial count value.

12. A navigation system comprising:

an inertial measurement unit having a first clock and a first switch;

a navigation computer having a second clock and a second switch; and,

a clock controller, wherein the clock controller controls the first and second switches so as to selectively supply a clock signal from the second

clock to only the navigation computer and to both the navigation computer and the inertial measurement unit.

13. The navigation system of claim 12 wherein the clock controller comprises a phase controller that controls the phase of the clock signal.

14. The navigation system of claim 12 wherein the first switch comprises first and second terminals, wherein the first terminal is coupled to the clock of the inertial measurement unit and the second terminal is coupled to the second switch, wherein the second switch comprises a third terminal, wherein the third terminal is coupled to the clock of the navigation computer, and wherein the clock controller controls the first and second switches.

15. The navigation system of claim 12 further comprising a GPS receiver having a clock, wherein the clock of the GPS receiver is coupled to the clock controller, and wherein the clock controller controls the first and second switches so as to selectively supply a clock signal from the clock of the GPS receiver to all of

the inertial measurement unit, the navigation computer, and the GPS receiver.

16. The navigation system of claim 15 wherein the first switch comprises first and second terminals and a first output, wherein the second switch comprises third and fourth terminals and a second output, wherein the first terminal is coupled to the clock of the inertial measurement unit, wherein the second terminal is coupled to the second output, wherein the third terminal is coupled to the clock of the navigation computer, wherein the fourth terminal is coupled to the clock controller, wherein the clock of the GPS receiver is coupled to the clock controller, and wherein the clock controller controls the first and second switches.

17. The navigation system of claim 15 wherein the clock controller comprises a phase controller that controls the phase of the clock signal from the clock of the GPS receiver.

18. The navigation system of claim 17 wherein the first switch comprises first and second terminals and a first output, wherein the second switch comprises third

and fourth terminals and a second output, wherein the first terminal is coupled to the clock of the inertial measurement unit, wherein the second terminal is coupled to the second output, wherein the third terminal is coupled to the clock of the navigation computer, wherein the fourth terminal is coupled to the clock controller, wherein the clock of the GPS receiver is coupled to the clock controller, and wherein the clock controller controls the first, second, and third switches.

19. The navigation system of claim 17 wherein the phase controller comprises a count down register having a first input coupled to a clock source operating at a multiple of the clock of the GPS receiver, a second input coupled to the clock of the GPS receiver, and a third input receiving an initial count value.

20. A method comprising:

supplying a first clock signal from a clock of a navigation computer only to components of the navigation computer in response to a first condition;

supplying the first clock signal from the clock of the navigation computer to components of the

navigation computer and to components of an inertial measurement unit in response to a second condition; and,

supplying a second clock signal from a clock of a GPS receiver to components of the GPS receiver, to components of the navigation computer, and to components of the inertial measurement unit in response to a third condition.

21. The method of claim 20 wherein the first condition comprises absence of the inertial measurement unit.

22. The method of claim 20 wherein the first condition comprises failure of the inertial measurement unit.

23. The method of claim 20 wherein the second condition comprises correct operation of the inertial measurement unit and absence of deep integration of the GPS receiver.

24. The method of claim 20 wherein the second condition comprises correct operation of the inertial

measurement unit and non-execution of deep integration of the GPS receiver.

25. The method of claim 20 wherein the third condition comprises execution of deep integration of the GPS receiver.

26. The method of claim 20 further comprising adjusting time alignment of inertial data from the inertial measurement unit, GPS data from the GPS receiver, and tracking loop commands provided by the navigation computer.

27. The method of claim 26 wherein the first condition comprises absence of the inertial measurement unit.

28. The method of claim 26 wherein the first condition comprises failure of the inertial measurement unit.

29. The method of claim 26 wherein the second condition comprises correct operation of the inertial

measurement unit and absence of deep integration of the GPS receiver.

30. The method of claim 26 wherein the second condition comprises correct operation of the inertial measurement unit and non-execution of deep integration of the GPS receiver.

31. The method of claim 26 wherein the third condition comprises execution of deep integration of the GPS receiver.

32. The method of claim 20 wherein the first condition comprises failure of the inertial measurement unit, and wherein the second condition comprises correct operation of the inertial measurement unit and non-execution of deep integration of the GPS receiver.

33. The method of claim 32 wherein the third condition comprises execution of deep integration of the GPS receiver.